PA/10

CRF Errors Edited by the STIC Systems Branch

Serial	Number: 10/505,230	CRF Edit Date: 9/2/04 Edited by:
	Realighed Aucie cacle/am mo acid numbers/tex	in cases where the sequence
	Corrected the SEQ ID NO. Sequence numbers	edited were:
	Inserted or corrected a nucleic number at the e	nd of a nucleic line. SEQ ID
	NO's edited:	
_	Deleted: invalid beginning/end-of-file text	page numbers
	Inserted mandatory headings/numeric identifie	rs, specifically:
	Moved responses to same line as heading/nume	ric identifier, specifically:
	Other:	



PCT

RAW SEQUENCE LISTING DATE: 09/02/2004 PATENT APPLICATION: US/10/505,230 TIME: 17:26:27

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\09022004\J505230.raw

```
3 <110> APPLICANT: VAN DEN BRINK, Gijs Robert
            PEPPELENBOSCH, Maikel Petrus
             HARDWICK, Hames Christopher Henry
            VAN DEVENTER, Sander Jan Hendrik
     8 <120> TITLE OF INVENTION: Hedgehog-related prophylaxis, therapy and diagnosis of
             GI tract carcinogenesis
     11 <130> FILE REFERENCE: 28902.nob10
C--> 13 <140> CURRENT APPLICATION NUMBER: US/10/505,230
     14 <141> CURRENT FILING DATE: 2004-08-20
     16 <150> PRIOR APPLICATION NUMBER: PCT/NL03/00127
     17 <151> PRIOR FILING DATE: 2003-02-20
     19 <150> PRIOR APPLICATION NUMBER: EP 02075690.4
     20 <151> PRIOR FILING DATE: 2002-02-20
     22 <160> NUMBER OF SEQ ID NOS: 3
    24 <170> SOFTWARE: PatentIn Ver. 2.1
    26 <210> SEQ ID NO: 1
    27 <211> LENGTH: 396
    28 <212> TYPE: PRT
    29 <213> ORGANISM: Homo sapiens
    31 <220> FEATURE:
     32 <223> OTHER INFORMATION: Human Desert Hedgehog protein
     34 <400> SEOUENCE: 1
     36 Met Ala Leu Leu Thr Asn Leu Leu Pro Leu Cys Cys Leu Ala Leu Leu
    39 Ala Leu Pro Ala Gln Ser Cys Gly Pro Gly Arg Gly Pro Val Gly Arg
                    20
                                         25
     42 Arg Arg Tyr Ala Arg Lys Gln Leu Val Pro Leu Leu Tyr Lys Gln Phe
     45 Val Pro Gly Val Pro Glu Arg Thr Leu Gly Ala Ser Gly Pro Ala Glu
     48 Gly Arg Val Ala Arg Gly Ser Glu Arg Phe Arg Asp Leu Val Pro Asn
    51 Tyr Asn Pro Asp Ile Ile Phe Lys Asp Glu Glu Asn Ser Gly Ala Asp
    54 Arg Leu Met Thr Glu Arg Cys Lys Glu Arg Val Asn Ala Leu Ala Ile
    57 Ala Val Met Asn Met Trp Pro Gly Val Arg Leu Arg Val Thr Glu Gly
                                    120
     60 Trp Asp Glu Asp Gly His His Ala Gln Asp Ser Leu His Tyr Glu Gly
                                135
                                                    140
    63 Arg Ala Leu Asp Ile Thr Thr Ser Asp Arg Asp Arg Asn Lys Tyr Gly
                            150
```

66 Leu Leu Ala Arg Leu Ala Val Glu Ala Gly Phe Asp Trp Val Tyr

RAW SEQUENCE LISTING DATE: 09/02/2004
PATENT APPLICATION: US/10/505,230 TIME: 17:26:27

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\09022004\J505230.raw

67		165					170					175	
69 Glu Ser A	rg Asn	His	Val	His	Val	Ser	Val	Lys	Ala	Asp	Asn	Ser	Leu
70	180					185					190		
72 Ala Val A	rg Ala	Gly	Gly	Cys	Phe	Pro	Gly	Asn	Ala	Thr	Val	Arg	Leu
	.95				200					205			
75 Trp Ser G	ly Glu	Arg	Lys	Gly	Leu	Arg	Glu	Leu	His	Arg	Gly	Asp	Trp
76 210				215					220				•
78 Val Leu A	la Ala	Asp	Ala	Ser	Gly	Arg	Val	Val	Pro	Thr	Pro	Val	Leu
79 225			230					235					240
81 Leu Phe I	eu Asp	Arg	Asp	Leu	Gln	Arg	Arg	Ala	Ser	Phe	Val	Ala	Val
82		245					250					255	
84 Glu Thr G	lu Trp	Pro	Pro	Arg	Lys	Leu	Leu	Leu	Thr	Pro	Trp	His	Leu
85	260					265					270		
87 Val Phe A	la Ala	Arg	Gly	Pro	Ala	Pro	Ala	Pro	Gly	Asp	Phe	Ala	Pro
88 2	175				280					285			
90 Val Phe A	la Arg	Arg	Leu	Arg	Ala	Gly	Asp	Ser	Val	Leu	Ala	Pro	Gly
91 290				295					300				
93 Gly Asp A	la Leu	Arg	Pro	Ala	Arg	Val	Ala	Arg	Val	Ala	Arg	Glu	Glu .
94 305			310					315					320
96 Ala Val G	ly Val	Phe	Ala	Pro	Leu	Thr		His	Gly	Thr	Leu		Val
97		325					330					335	
99 Asn Asp V	'al Leu	Ala	Ser	Cys	Tyr			Leu	Glu	Ser	His	Gln	Trp
100	34	_				345					350		_
102 Ala His	-	a Phe	: Ala	Pro			J Leι	ı Leı	His			ı Gly	/ Ala
103	355	_		_	360					365			_
105 Leu Leu	Pro Gl	y Gly	' Ala			ı Pro	Thr	Gly			Tr	о Туі	Ser
106 370				375		_			380				
108 Arg Leu	Leu Ty	r Arc			ı Glu	ı Glu	ı Leı			7			
109 385			390)				395)				
112 <210> SE													
113 <211> LE	:N(-*1.:H •	7 U 2											
114 <212> TY	PE: PR	T											
115 <213> OF	PE: PR	T	no sa	pien	ıs								
115 <213> OF 117 <220> FE	PE: PR GANISM LATURE:	T : Hon				Tndi	22 L	Iodaa	hog	nrot	oin		
115 <213> OF 117 <220> FE 118 <223> OT	PE: PR GANISM ATURE: THER IN	T : Hon Forma				Indi	.an H	ledge	ehog	prot	ein		
115 <213> OF 117 <220> FE 118 <223> OT 120 <400> SE	PE: PR GANISM ATURE: CHER IN	T : Hon FORMA : 2	ATION	I: Hu	ıman					_		, T~	a Agn
115 <213 > OF 117 <220 > FE 118 <223 > OT 120 <400 > SE 121 Met Asn	PE: PR GANISM ATURE: CHER IN	T : Hom FORMA : 2 p Pro	ATION o Gly	I: Hu	ıman		ı Arç	y Val		_			
115 <213 > OF 117 <220 > FE 118 <223 > OT 120 <400 > SE 121 Met Asn 122 1	PE: PRESANTSMEATURE: CHER INCOME CQUENCE Gln Tr	T : Hom FORMA : 2 p Pro	ATION o Gly	I: Hu Val	ıman . Lys	.Leu	ı Arg	y Val	. Thi	Glu	ı Gly	15	5
115 <213 > OF 117 <220 > FE 118 <223 > OT 120 <400 > SE 121 Met Asn 122 1 124 Glu Asp	PE: PR' GANISM ATURE: THER IN QUENCE Gln Tr	T : Hom FORMA : 2 p Pro 5 s His	ATION o Gly	I: Hu Val	ıman . Lys	s.Leu 1 Ser	ı Arg	y Val	. Thi	Glu	ı Gly	19 Arg	5
115 <213 > OF 117 <220 > FE 118 <223 > OT 120 <400 > SE 121 Met Asn 122 1 124 Glu Asp 125	PE: PR GANISM CATURE: THER IN CQUENCE Gln Tr Gly Hi	T : Hom FORMF : 2 p Pro 5 s His	ATION o Gly 5 s Ser	I: Hu Val	ıman Lys	Leu Ser 25	ı Arg 10 Lei	y Val	Thi	Glu Glu	1 Gly 1 Gly 30	15 7 Arg	a Ala
115 <213> OR 117 <220> FE 118 <223> OT 120 <400> SE 121 Met Asn 122 1 124 Glu Asp 125 127 Val Asp	PE: PR EGANISM EATURE: THER IN EQUENCE Gln Tr Gly Hi 2 Ile Th	T : Hom FORMF : 2 p Pro 5 s His	ATION o Gly 5 s Ser	I: Hu Val	ıman . Lys ı Glu o Arg	S Leu Ser 25 Asp	ı Arg 10 Lei	y Val	Thi	Glu Glu Tyr	Gly Gly Gly Gly Gly	15 7 Arg	a Ala
115 <213 > OR 117 <220 > FE 118 <223 > OT 120 <400 > SE 121 Met Asn 122 1 124 Glu Asp 125 127 Val Asp 128	CPE: PRESENTED P	T: Hom FORMF: 2 p Pro S His 0 r Thr	ATION O Gly S Ser	Val Val Glu Asp	uman Lys Glu Arg 40	S Leu Ser 25 J Asr	1 Arg	y Val) His y Asr	Thi Tyi	Glu Glu Tyr 45	Gly Gly Gly Gly Gly	15 / Arg) / Let	g Ala ı Leu
115 <213 > OR 117 <220 > FE 118 <223 > OT 120 <400 > SE 121 Met Asn 122 1 124 Glu Asp 125 127 Val Asp 128 130 Ala Arg	CPE: PRESENTED P	T: Hom FORMF: 2 p Pro S His 0 r Thr	ATION O Gly S Ser	V: Hu Val Glu Asp	Lys Glu Arg 40	S Leu Ser 25 J Asr	1 Arg	y Val) His y Asr	Thi Tyi Lys	Glu Glu Tyr 45	Gly Gly Gly Gly Gly	15 / Arg) / Let	g Ala ı Leu
115 <213 > OR 117 <220 > FE 118 <223 > OT 120 <400 > SE 121 Met Asn 122	PE: PR CGANISM CATURE: CHER IN CQUENCE Gln Tr Gly Hi 2 Ile Th 35 Leu Al	T: Hom FORMF: 2 p Pro 5 s His 0 r Thr	ATION O Gly o Ser c Ser c Glu	Val Val Glu Asp Ala 55	Lys Glu Arc Gly Gly Gly	S Leu Ser 25 J Asr O Phe	1 Arg	y Val	Thi Tyr Lys Val	Glu Glu Tyr 45 Tyr	Gly Gly Gly Gly Gly Gly	19 7 Arg) 7 Let c Glu	g Ala Leu Ser
115 <213 > OR 117 <220 > FE 118 <223 > OT 120 <400 > SE 121 Met Asn 122 1 124 Glu Asp 125 127 Val Asp 128 130 Ala Arg 131 50 133 Lys Ala	PE: PR CGANISM CATURE: CHER IN CQUENCE Gln Tr Gly Hi 2 Ile Th 35 Leu Al	T: Hom FORMF: 2 p Pro 5 s His 0 r Thr	ATION O Gly o Ser Ser Glu	Val Val Glu Asp Ala 55	Lys Glu Arc Gly Gly Gly	S Leu Ser 25 J Asr O Phe	1 Arg	y Val) i His Asr Trp	Thr Tyr Lys Val	Glu Glu Tyr 45 Tyr	Gly Gly Gly Gly Gly Gly	19 7 Arg) 7 Let c Glu	g Ala g Ala Leu ser
115 <213 > OR 117 <220 > FE 118 <223 > OT 120 <400 > SE 121 Met Asn 122 1 124 Glu Asp 125 127 Val Asp 128 130 Ala Arg 131 50 133 Lys Ala 134 65	PE: PR CGANISM CATURE: CHER IN CQUENCE Gln Tr CQUENCE Gly Hi 2 Ile Th 35 Leu Al His Va	T: Hom FORMF: 2 p Pro S His O r Thr a Val	ATION O Gly o Ser o Ser o Glu o Cys o 70	Val Val Glu Asp Ala 55 Ser	Lys Glu Arg 40 Gly Gly T	S Leu Ser 25 Asr Phe	1 Arcon 10 Arcon A	y Val His Asr Trp	Thin Lys Val 60 His	Glu Glu Tyr 45 Tyr Ser	Gly	15 / Arg / Let / Clu Ala	g Ala Leu Ser Ala 80
115 <213 > OR 117 <220 > FE 118 <223 > OT 120 <400 > SE 121 Met Asn 122 1 124 Glu Asp 125 127 Val Asp 128 130 Ala Arg 131 50 133 Lys Ala 134 65 136 Lys Thr	PE: PR CGANISM CATURE: CHER IN CQUENCE Gln Tr CQUENCE Gly Hi 2 Ile Th 35 Leu Al His Va	T: Hom FORMF: 2 p Pro S His O r Thr a Val l His	ATION O Gly S Ser C Ser C Glu S Cys 70 S Phe	Val Val Glu Asp Ala 55 Ser	Lys Glu Arg 40 Gly Gly T	S Leu Ser 25 Asr Phe	1 Arg	y Val) i His y Asr O Trp C Glu 75	Thin Lys Val 60 His	Glu Glu Tyr 45 Tyr Ser	Gly	Argo Y Lev C Glu A Ala	g Ala Leu Ser A Ala 80 Ser
115 <213 > OR 117 <220 > FE 118 <223 > OT 120 <400 > SE 121 Met Asn 122 1 124 Glu Asp 125 127 Val Asp 128 130 Ala Arg 131 50 133 Lys Ala 134 65	PE: PR GGANISM EATURE: THER IN EQUENCE GIN Tr 2 Ile Th 35 Leu Al His Va	T: Hom FORMF: 2 p Pro S His O Thr a Val l His	ATION O Gly o Ser o Ser o Glu o Cys o 70 o Phe	Value Asp Asp Ala Ser Pro	Lys Glu Arc 40 Gly TVal	S Leu Sen 25 J Asp Phe Lys	1 Arg	y Val) i His g Asr O Trp C Glu 75	Thin Lys Val 60 His	Glu	Gly	15 / Arg / Lev / Column / Column	g Ala Leu Ser Ala 80 Ser

RAW SEQUENCE LISTING DATE: 09/02/2004
PATENT APPLICATION: US/10/505,230 TIME: 17:26:27

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\09022004\J505230.raw

140				100					105					110		
142	Ala	Met	Gly	Glu	Asp	Gly	Ser	Pro	Thr	Phe	Ser	Asp	Val	Leu	Ile	Phe
143			115		-	-		120				-	125			
145	Leu	Asp	Arq	Glu	Pro	His	Arq	Leu	Arq	Ala	Phe	Gln	Val	Ile	Glu	Thr
146		130	·						_			140				
148	Gln	Asp	Pro	Pro	Arq	Arq	Leu	Ala	Leu	Thr	Pro	Ala	His	Leu	Leu	Phe
	145				_	150					155					160
	Thr	Ala	Asp	Asn	His	Thr	Glu	Pro	Ala	Ala	Ara	Phe	Ara	Ala	Thr	Phe
152					165					170	_		,		175	
	Ala	Ser	His	Val		Pro	Glv	Gln	Tvr				Ala	Glv		Pro
155				180			1		185					190		
	Gly	Leu	Gln		Ala	Ara	Val	Ala		Val	Ser	Thr	His		Ala	Leu
158	_		195			5		200					205			
	Gly	Ala		Ala	Pro	Leu	Thr		His	Glv	Thr	Leu		Val	Glu	Asp
161	017	210	-1-			200	215					220				
	Val		Δla	Ser	Cvs	Phe		Δla	Val	Δla	Asp		His	Len	Ala	Gln
	225			501	_	230					235					240
	Leu	Δla	Phe	Trn			Δra	Leu	Phe	His		T.e.11	Δla	Trn	Glv	
167	ыси	mu	1110	111	245	Lea	**** 9	Dea	1 110	250	001	Lea			255	001
	Trp	Thr	Pro	Glv		Glv	Val	His	Tro		Pro	Gln	T.e.11	T.em		Ara
170	111	1111	110	260	Olu	Ory	• • • •		265			01	ДСИ	270	-1-	9
	Leu	Glv	Ara		T.en	Len	Glu	Glu				His	Pro		Glv	Met
173	2Cu	· - 1	275	ВСα	Leu	Leu	O1 u	280	011	001			285	200	017	
	Ser	Glv	-	Glv	Ser			200					200			
	DCI	_	2114	O- 1	UCI											
176		290														
176 179	<210	290 0> S1	EO TI	O NO:	. 3											
179	<210	0 > S1														
179 180	<21	0> S1 1> L1	ENGT	H: 46												
179 180 181	<212 <212	0> S1 1> L1 2> T	ENGTI YPE :	H: 46	52	o sai	oiens	3								
179 180 181 182	<212 <212 <213	0 > S1 1 > L1 2 > T1 3 > O1	engti Ype : Rgani	H: 46 PRT ISM:	52	o saj	piens	5								
179 180 181 182 184	<213 <213 <223	0> S1 1> L1 2> T3 3> O1 0> F1	ENGTI YPE: RGANI EATUI	H: 46 PRT ISM: RE:	52 Homo				Sonic	c hec	igeho	נס פנ	rote	in		
179 180 181 182 184 185	<213 <213 <213 <220 <223	0 > S1 1 > L1 2 > T3 3 > O1 0 > F1 3 > O3	ENGTI YPE: RGANI EATUI THER	H: 40 PRT ISM: RE: INFO	52 Homo DRMAT				Sonic	c hed	dgeho	og þi	rote	in		
179 180 181 182 184 185 187	<213 <213 <213 <220 <223 <400	0 > S1 1 > L1 2 > T 3 > O1 0 > F1 3 > O5 0 > S1	ENGTI YPE: RGANI EATUI THER EQUEI	H: 46 PRT ISM: RE: INFO	HOMO RMAT 3	TION	: Hur	man s							Ser	Leu
179 180 181 182 184 185 187	<213 <213 <213 <220 <223	0 > S1 1 > L1 2 > T 3 > O1 0 > F1 3 > O5 0 > S1	ENGTI YPE: RGANI EATUI THER EQUEI	H: 46 PRT ISM: RE: INFO	HOMO RMAT 3	TION	: Hur	man s		Leu					Ser 15	Leu
179 180 181 182 184 185 187 188	<213 <213 <223 <223 <400 Met	0 > S1 1 > L1 2 > T1 3 > O1 0 > F1 3 > O1 0 > S1 Leu	ENGTI YPE: RGANI EATUI THER EQUEI Leu	H: 46 PRT ISM: RE: INFO NCE: Leu	HOMO DRMAT 3 Ala 5	rion Arg	: Hur Cys	man S Leu	Leu	Leu 10	Val	Leu	Val	Ser	15	
179 180 181 182 184 185 187 188 189	<213 <213 <220 <223 <400 Met	0 > S1 1 > L1 2 > T1 3 > O1 0 > F1 3 > O1 0 > S1 Leu	ENGTI YPE: RGANI EATUI THER EQUEI Leu	H: 46 PRT ISM: RE: INFO NCE: Leu Ser	HOMO DRMAT 3 Ala 5	rion Arg	: Hur Cys	man S Leu	Leu Gly	Leu 10	Val	Leu	Val	Ser Phe	15	
179 180 181 182 184 185 187 188 189 191	<211 <212 <221 <220 <400 Met 1 Leu	0> S1 1> L1 2> T3 3> O1 0> F1 0> S1 Leu Val	ENGTH YPE: RGANI EATUH FHER EQUEN Leu Cys	H: 40 PRT ISM: RE: INFO NCE: Leu Ser 20	HOMO DRMAT 3 Ala 5 Gly	TION Arg Leu	: Hur Cys Ala	nan S Leu Cys	Leu Gly 25	Leu 10 Pro	Val Gly	Leu Arg	Val Gly	Ser Phe 30	15 Gly	Lys
179 180 181 182 184 185 187 188 189 191	<213 <213 <223 <223 <400 Met	0> S1 1> L1 2> T3 3> O1 0> F1 0> S1 Leu Val	ENGTHYPE: RGANI EATUHER FHER EQUEN Leu Cys His	H: 40 PRT ISM: RE: INFO NCE: Leu Ser 20	HOMO DRMAT 3 Ala 5 Gly	TION Arg Leu	: Hur Cys Ala	nan S Leu Cys Thr	Leu Gly 25	Leu 10 Pro	Val Gly	Leu Arg	Val Gly Lys	Ser Phe 30	15 Gly	Lys
179 180 181 182 184 185 187 188 189 191 192 194 195	<211 <212 <223 <220 <400 Met 1 Leu	0 > S1 1 > L1 2 > T 3 > O1 0 > F1 3 > O 0 > S1 Leu Val Arg	ENGTH YPE: RGANI EATUH THER EQUEN Leu Cys His 35	H: 46 PRT ISM: RE: INFO NCE: Leu Ser 20 Pro	HOMO DRMAT 3 Ala 5 Gly Lys	TION Arg Leu Lys	: Hur Cys Ala Leu	Leu Cys Thr	Leu Gly 25 Pro	Leu 10 Pro Leu	Val Gly Ala	Leu Arg Tyr	Val Gly Lys 45	Ser Phe 30 Gln	15 Gly Phe	Lys Ile
179 180 181 182 184 185 187 188 189 191 192 194 195	<213 <213 <220 <223 <400 Met 1 Leu Arg	0 > S1 1 > L1 2 > T 3 > O1 0 > F1 3 > O 0 > S1 Leu Val Arg Asn	ENGTH YPE: RGANI EATUH THER EQUEN Leu Cys His 35 Val	H: 46 PRT ISM: RE: INFO NCE: Leu Ser 20 Pro	Homo DRMAT 3 Ala 5 Gly Lys	Arg Leu Lys	: Hur Cys Ala Leu Thr	Leu Cys Thr 40 Leu	Leu Gly 25 Pro Gly	Leu 10 Pro Leu Ala	Val Gly Ala Ser	Leu Arg Tyr Gly	Val Gly Lys 45 Arg	Ser Phe 30 Gln Tyr	15 Gly Phe	Lys Ile
179 180 181 182 184 185 187 188 199 191 192 194 195 197	<213 <213 <220 <223 <400 Met 1 Leu Arg	0 > S1 1 > L1 2 > T 3 > O1 0 > F1 3 > O 0 > S1 Leu Val Arg Asn 50	ENGTH YPE: RGANI EATUH THER EQUEN Leu Cys His 35 Val	H: 46 PRT ISM: RE: INFO NCE: Leu Ser 20 Pro	HOMO DRMAT 3 Ala 5 Gly Lys Glu	Arg Leu Lys	Cys Ala Leu Thr	Leu Cys Thr 40 Leu	Leu Gly 25 Pro Gly	Leu 10 Pro Leu Ala	Val Gly Ala Ser	Leu Arg Tyr Gly	Val Gly Lys 45 Arg	Ser Phe 30 Gln Tyr	15 Gly Phe Glu	Lys Ile Gly
179 180 181 182 184 185 187 188 189 191 192 194 195 197 198 200	<213 <213 <220 <223 <400 Met 1 Leu Arg Pro	0 > S1 1 > L1 2 > T 3 > O1 0 > F1 3 > O 0 > S1 Leu Val Arg Asn 50	ENGTH YPE: RGANI EATUH THER EQUEN Leu Cys His 35 Val	H: 46 PRT ISM: RE: INFO NCE: Leu Ser 20 Pro	HOMO DRMAT 3 Ala 5 Gly Lys Glu	Arg Leu Lys Lys Ser	Cys Ala Leu Thr	Leu Cys Thr 40 Leu	Leu Gly 25 Pro Gly	Leu 10 Pro Leu Ala	Val Gly Ala Ser	Leu Arg Tyr Gly	Val Gly Lys 45 Arg	Ser Phe 30 Gln Tyr	15 Gly Phe Glu	Lys Ile Gly Tyr
179 180 181 182 184 185 187 188 189 191 192 194 195 197 198 200 201	<213 <213 <223 <400 Met 1 Leu Arg Pro	0 > S1 1 > L1 2 > T 3 > O1 0 > F1 3 > O 0 > S1 Leu Val Arg Asn 50 Ile	ENGTH YPE: RGANI EATUH THER EQUEN Leu Cys His 35 Val	H: 46 PRT ISM: RE: INFO NCE: Leu Ser 20 Pro Ala Arg	HOMO DRMAT 3 Ala 5 Gly Lys Glu Asn	Arg Leu Lys Lys Ser	Cys Ala Leu Thr 55 Glu	Leu Cys Thr 40 Leu	Leu Gly 25 Pro Gly Phe	Leu 10 Pro Leu Ala	Val Gly Ala Ser Glu 75	Leu Arg Tyr Gly 60 Leu	Val Gly Lys 45 Arg	Ser Phe 30 Gln Tyr Pro	15 Gly Phe Glu Asn	Lys Ile Gly Tyr 80
179 180 181 182 184 185 187 188 189 191 192 194 195 197 198 200 201 203	<213 <213 <220 <223 <400 Met 1 Leu Arg Pro	0 > S1 1 > L1 2 > T 3 > O1 0 > F1 3 > O 0 > S1 Leu Val Arg Asn 50 Ile	ENGTH YPE: RGANI EATUH THER EQUEN Leu Cys His 35 Val	H: 46 PRT ISM: RE: INFO NCE: Leu Ser 20 Pro Ala Arg	HOMO DRMAT 3 Ala 5 Gly Lys Glu Asn	Arg Leu Lys Lys Ser	Cys Ala Leu Thr 55 Glu	Leu Cys Thr 40 Leu	Leu Gly 25 Pro Gly Phe	Leu 10 Pro Leu Ala Lys Glu	Val Gly Ala Ser Glu 75	Leu Arg Tyr Gly 60 Leu	Val Gly Lys 45 Arg	Ser Phe 30 Gln Tyr Pro	15 Gly Phe Glu Asn	Lys Ile Gly Tyr 80
179 180 181 182 184 185 187 188 189 191 192 194 195 197 198 200 201 203 204	<213 <213 <221 <220 <223 <400 Met 1 Leu Arg Pro Lys 65 Asn	0 > SI 1 > LI 2 > T' 3 > OI 0 > FI 3 > O' 0 > SI Leu Val Arg Asn 50 Ile Pro	ENGTH YPE: RGANT REATUR THER EQUEN Leu Cys His 35 Val Ser Asp	H: 46 PRT ISM: ISM: INFO NCE: Leu Ser 20 Pro Ala Arg Ile	HOMO DRMAT 3 Ala 5 Gly Lys Glu Asn Ile 85	Leu Lys Lys Lys Ser 70	Cys Ala Leu Thr 55 Glu Lys	Leu Cys Thr 40 Leu Arg	Leu Gly 25 Pro Gly Phe Glu	Leu 10 Pro Leu Ala Lys Glu 90	Val Gly Ala Ser Glu 75 Asn	Leu Arg Tyr Gly 60 Leu Thr	Val Gly Lys 45 Arg Thr	Ser Phe 30 Gln Tyr Pro Ala	15 Gly Phe Glu Asn Asp 95	Lys Ile Gly Tyr 80 Arg
179 180 181 182 184 185 187 188 189 191 192 194 195 197 198 200 201 203 204 206	<213 <213 <223 <400 Met 1 Leu Arg Pro	0 > SI 1 > LI 2 > T' 3 > OI 0 > FI 3 > O' 0 > SI Leu Val Arg Asn 50 Ile Pro	ENGTH YPE: RGANT REATUR THER EQUEN Leu Cys His 35 Val Ser Asp	H: 46 PRT ISM: ISM: INFO NCE: Leu Ser 20 Pro Ala Arg Ile Gln	HOMO DRMAT 3 Ala 5 Gly Lys Glu Asn Ile 85	Leu Lys Lys Lys Ser 70	Cys Ala Leu Thr 55 Glu Lys	Leu Cys Thr 40 Leu Arg	Leu Gly 25 Pro Gly Phe Glu Lys	Leu 10 Pro Leu Ala Lys Glu 90	Val Gly Ala Ser Glu 75 Asn	Leu Arg Tyr Gly 60 Leu Thr	Val Gly Lys 45 Arg Thr	Ser Phe 30 Gln Tyr Pro Ala Ala	15 Gly Phe Glu Asn Asp 95	Lys Ile Gly Tyr 80 Arg
179 180 181 182 184 185 187 188 189 191 192 194 195 197 200 201 203 204 206 207	<213 <213 <221 <222 <400 Met 1 Leu Arg Pro Lys 65 Asn Leu	0 > SI 1 > L1 2 > TY 3 > OI 0 > FI 3 > OY 0 > SI Leu Val Arg Asn 50 Ile Pro Met	ENGTH YPE: RGAN: RGAN: REATUR THER EQUEN Leu Cys His 35 Val Ser Asp	H: 46 PRT ISM: ISM: INFO NCE: Leu Ser 20 Pro Ala Arg Ile Gln 100	HOMO DRMAT 3 Ala 5 Gly Lys Glu Asn Ile 85 Arg	Leu Lys Lys Lys Ser 70 Phe	Cys Ala Leu Thr 55 Glu Lys Lys	Thr 40 Leu Arg Asp	Leu Gly 25 Pro Gly Phe Glu Lys 105	Leu 10 Pro Leu Ala Lys Glu 90 Leu	Val Gly Ala Ser Glu 75 Asn	Leu Arg Tyr Gly 60 Leu Thr	Val Gly Lys 45 Arg Thr Gly Leu	Ser Phe 30 Gln Tyr Pro Ala Ala 110	15 Gly Phe Glu Asn Asp 95 Ile	Lys Ile Gly Tyr 80 Arg
179 180 181 182 184 185 187 188 189 191 192 194 195 197 200 201 203 204 206 207 209	<213 <213 <221 <220 <400 Met 1 Leu Arg Pro Lys 65 Asn	0 > SI 1 > L1 2 > TY 3 > OI 0 > FI 3 > OY 0 > SI Leu Val Arg Asn 50 Ile Pro Met	ENGTH YPE: RGAN: RGAN: REATUR THER EQUEN Leu Cys His 35 Val Ser Asp Thr	H: 46 PRT ISM: ISM: INFO NCE: Leu Ser 20 Pro Ala Arg Ile Gln 100	HOMO DRMAT 3 Ala 5 Gly Lys Glu Asn Ile 85 Arg	Leu Lys Lys Lys Ser 70 Phe	Cys Ala Leu Thr 55 Glu Lys Lys	Leu Cys Thr 40 Leu Arg Asp	Leu Gly 25 Pro Gly Phe Glu Lys 105	Leu 10 Pro Leu Ala Lys Glu 90 Leu	Val Gly Ala Ser Glu 75 Asn	Leu Arg Tyr Gly 60 Leu Thr	Val Gly Lys 45 Arg Thr Gly Leu Thr	Ser Phe 30 Gln Tyr Pro Ala Ala 110	15 Gly Phe Glu Asn Asp 95 Ile	Lys Ile Gly Tyr 80 Arg
179 180 181 182 184 185 187 188 189 191 192 194 195 197 200 201 203 204 206 207 209 210	<213 <213 <221 <222 <400 Met 1 Leu Arg Pro Lys 65 Asn Leu	O > SI 1 > LI 2 > TY 3 > OI O > FI 3 > OY O > SI Leu Val Arg Asn 50 Ile Pro Met	ENGTHYPE: RGANT REATUR THER EQUEN Leu Cys His 35 Val Ser Asp Thr Asn 115	H: 46 PRT ISM: RE: INFO NCE: Leu Ser 20 Pro Ala Arg Ile Gln 100 Gln	Homo DRMAT 3 Ala 5 Gly Lys Glu Asn Ile 85 Arg	Leu Lys Lys Lys Ser 70 Phe Cys	Cys Ala Leu Thr 55 Glu Lys Lys Gly	Leu Cys Thr 40 Leu Arg Asp Asp	Leu Gly 25 Pro Gly Phe Glu Lys 105 Lys	Leu 10 Pro Leu Ala Lys Glu 90 Leu	Val Gly Ala Ser Glu 75 Asn Asn	Leu Arg Tyr Gly 60 Leu Thr Ala	Val Gly Lys 45 Arg Thr Gly Leu Thr 125	Ser Phe 30 Gln Tyr Pro Ala Ala 110 Glu	15 Gly Phe Glu Asn Asp 95 Ile Gly	Lys Ile Gly Tyr 80 Arg Ser

RAW SEQUENCE LISTING DATE: 09/02/2004
PATENT APPLICATION: US/10/505,230 TIME: 17:26:27

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\09022004\J505230.raw

213		130					135					140				
215	Ala	Val	Asp	Ile	Thr	Thr	Ser	Asp	Arg	Asp	Arq	Ser	Lys	Tyr	Gly	Met
	145		-			150		_		-	155		-	-	-	160
218	Leu	Ala	Arg	Leu	Ala	Val	Glu	Ala	Gly	Phe	Asp	Trp	Val	Tyr	Tyr	Glu
219			_		165				_	170	_			_	175	
221	Ser	Lys	Ala	His	Ile	His	Cys	Ser	Val	Lys	Ala	Glu	Asn	Ser	Val	Ala
222				180					185					190		
224	Ala	Lys	Ser	Gly	Gly	Cys	Phe	Pro	Gly	Ser	Ala	Thr	Val	His	Leu	Glu
225			195					200					205			
227	Gln	Gly	Gly	Thr	Lys	Leu	Val	Lys	Asp	Leu	Ser	Pro	Gly	Asp	Arg	Val
228		210					215					220				
230	Leu	Ala	Ala	Asp	Asp	Gln	Gly	Arg	Leu	Leu	Tyr	Ser	Asp	Phe	Leu	Thr
231	225					230					235					240
233	Phe	Leu	Asp	Arg	Asp	Asp	Gly	Ala	Lys	Lys	Val	Phe	Tyr	Val	Ile	Glu
234					245					250					255	
236	Thr	Arg	Glu	Pro	Arg	Glu	Arg	Leu	Leu	Leu	Thr	Ala	Ala	His	Leu	Leu
237				260					265					270		
	Phe	Val		Pro	His	Asn	Asp		Ala	Thr	Gly	Glu		Glu	Ala	Ser
240		_	275	_				280					285			
	Ser	-	Ser	Gly	Pro	Pro		Gly	Gly	Ala	Leu	_	Pro	Arg	Ala	Leu
243	_,	290	_	_		_	295	~-3	~ 3	_		300				~7
		Ala	Ser	Arg	vai	_	Pro	GIY	GIn	Arg		Tyr	vaı	vai	Ala	
	305	7	~ 1	7	70	310	T	T	D	77.	315	77-7	772 -	C	T7- 7	320
	Arg	Asp	GIY	Asp		arg	Leu	ьeu	Pro		АТА	vai	HIS	ser	Val	THE
249	T 011	Cox	C1.,	c1	325	ת 1 ת	C1	הות	Ф	330	Dwo	T 011	Th~	ת 1 ת	335	C111
251	ьeu	ser	GIU	340	Ala	AIA	GIY	AIa	345	Ата	PIO	ьеи	1111	350	Gln	GIY
	Thr	т1 д	Lau		λcn	λκα	Wal.	T.Au		Ser	Cve	Тиг	Δ Ι =		Ile	Glu
255	1111	110	355	110	ASII	AI 9	vai	360	nια	DCI	Cys	1 7 1	365	Val	110	OIU
	Glu	His		Trn	Δla	His	Ara		Phe	Δla	Pro	Phe		Leu	Ala	His
258	014	370	201				375					380	5			
	Ala		Leu	Ala	Ala	Leu		Pro	Ala	Ara	Thr		Ara	Glv	Gly	Asp
261						390				5	395			- 1	- 4	400
		Gly	Gly	Gly	Asp	Arq	Gly	Gly	Gly	Gly	Gly	Arq	Val	Ala	Leu	Thr
264		-	•	•	405	_	•	•	•	410	•	J			415	
266	Ala	Pro	Gly	Ala	Ala	Asp	Ala	Pro	Gly	Ala	Gly	Ala	Thr	Ala	Gly	Ile
267			_	420					425					430		
269	His	Trp	Tyr	Ser	Gln	Leu	Leu	Tyr	Gln	Ile	Gly	Thr	Trp	Leu	Leu	Asp
270			435					440					445			
272	Ser	Glu	Ala	Leu	His	Pro	Leu	Gly	Met	Ala	Val	Lys	Ser	Ser		
273		450					455					460				

VERIFICATION SUMMARY

DATE: 09/02/2004

PATENT APPLICATION: US/10/505,230

TIME: 17:26:28

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\09022004\J505230.raw

L:13 M:270 C: Current Application Number differs, Replaced Current Application Number